

# Parts and Proportion: Maths : Year 6 : Autumn Term, Week 5

	Learning Objective	Overview	Assessment Questions	Resources
<b>Lesson 1</b>	To compare and order fractions, including fractions greater than one.	Children will recap adding fractions with the same denominator, resulting in improper fractions. They will practise converting improper fractions to mixed numbers and consider why this is helpful. Children will also start to convert some fractions to decimals, again considering why this is helpful.	<ul style="list-style-type: none"> <li>• Can children convert improper fractions to mixed number fractions?</li> <li>• Can children convert some fractions to decimal numbers?</li> <li>• Can children compare and order fractions, including those greater than one?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Target Boards 1A/1B/1C</li> <li>• Target Number cards 1A/1B/1C</li> <li>• Big Ordering Challenge cards (FSD...? activity only)</li> </ul>
<b>Lesson 2</b>	To compare and order fractions by finding a common denominator.	Children are presented with a scenario in which two different fractions – with different denominators – of the same amount must be compared. They will then learn how to find the lowest common denominator of two or more fractions, so they may be more easily compared or ordered.	<ul style="list-style-type: none"> <li>• Can children find the lowest common multiple of two different denominators?</li> <li>• Can children convert two different fractions so they have a common denominator?</li> <li>• Can children compare and order fractions by finding their common denominator?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheets 2A/2B/2C</li> <li>• Challenge Cards 2A–2C (FSD...? activity only)</li> <li>• Weighing scales, containers, rice or sand (FSD...? activity only)</li> </ul>
<b>Lesson 3</b>	To express related amounts as ratios, and solve ratio problems.	Children will consider how and why ratios are used, write ratios to represent related amounts, and change the scale of ratios where both sides of the ratio may be multiplied or divided by the same whole number. Some children will also solve trickier ratio problems requiring extra steps/calculations.	<ul style="list-style-type: none"> <li>• Can children write ratios for given images and descriptions of related amounts?</li> <li>• Can children increase/decrease the scale of ratios where the values are divisible by the same amount?</li> <li>• Can children spot number patterns to solve some trickier ratio problems where the values are not divisible by the same amount?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Demolition! sheet</li> <li>• Crash, Bash &amp; Smash question cards</li> <li>• End Of The Line sheet (FSD...? activity only)</li> </ul>
<b>Lesson 4</b>	To compare, order and transform shapes by scale factors.	Children will recap various ways shapes on a grid may be transformed, then learn more about how they may be transformed by scaling. They will learn how a scale factor may be used to describe this type of transformation, then practise scaling polygons and rectilinear shapes by scale factors more, and less, than one.	<ul style="list-style-type: none"> <li>• Can children estimate, just by looking, whether a shape transformed by a scale factor has increased/decreased?</li> <li>• Can children identify or draw shapes that have been transformed by common scale factors, e.g. 1/4, 1/2, 2, 4, 5, 10?</li> <li>• Can children calculate transformations by scale factors less than one, given as fractions and as decimal numbers?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheets 4A/4B/4C</li> <li>• Challenge Card 4 (FSD...? activity only)</li> <li>• Maths resources, construction toys, art software etc. (FSD...? activity only)</li> </ul>
<b>Lesson 5</b>	To solve problems involving the scale factor of shapes.	Children will identify common errors that may be made when transforming simple shapes or images by various scale factors. They will go on to learn how to identify the ratio of a transformed image, compared to the original. After that, children may either practise transforming drawings of everyday objects at different scales, identifying their ratios, or make clay sculptures at different scales.	<ul style="list-style-type: none"> <li>• Can children identify ways in which shapes have been incorrectly transformed by given scale factors?</li> <li>• Can children work out ratios to describe shapes that have been transformed by given scale factors?</li> <li>• Can children make scale drawings or models at given scale factors and ratios?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheets 5A/5B</li> <li>• Challenge Card 5 (FSD...? activity only)</li> <li>• Weighing scales and clay (FSD...? activity only)</li> </ul>